



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont  
Material Safety Data Sheet

Page 1

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"ELVAX" RESINS ALL IN SYNONYM LIST VAX012  
VAX012 Revised 6-JUN-2003  
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CHEMICAL PRODUCT/COMPANY IDENTIFICATION  
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Material Identification

"ELVAX" is a registered trademark of DuPont.

Tradenames and Synonyms

"ELVAX" 40L-03, 40L-08, 40W, 40WN, 41W, 46, 46L,  
"ELVAX" 140W, 150, 150BP, 150W, 150W-LG, 155W-LG,  
"ELVAX" 160W, 170,  
"ELVAX" 200W, 205W, 210, 210W, 210WC, 210LW, 220, 220W,  
"ELVAX" 240, 240W, 240Z, 250, 250W, 250Z1,  
"ELVAX" 260, 260C, 260CG,  
"ELVAX" 260Z, 263, 265, 265BP, 265C, 290, 310, 310W, 350,  
"ELVAX" 360, 360C, 360P, 362, 660Z1,  
"ELVAX" 3175, 3175LG,  
"ELVAX" 3175LGZ, 3179-2, 3179-3, 3180, 3180Z, 3182, 3182-2,  
"ELVAX" 3182Z, 3813,  
"ELVAX" 3185, 3185BP, 3185LG, 3188, 3190, 3190LG, 3190LGZ,  
"ELVAX" 3200-1, 3200-2, 4031WLG,  
"ELVAX" BR2000,  
"ELVAX" BR3190LGZ, BR3200, BR3800, BR3900,  
"ELVAX" BR4031WLG, BR4600, BR4850, BR4884, #  
"ELVAX" BR4900, BR4918, BR4986,  
"ELVAX" CE4035, CE9746, CM574, CM576,  
"ELVAX" CM595, CM860, CM3295C, CM3326, CM4987W,  
"ELVAX" EP170PS,  
"ELVAX" EP340, EP3536, EP3538,  
"ELVAX" EP3543, EP4056, EP4059, EP4070-N,  
"ELVAX" EP4071W, EP4136, EP4147, EP4150, EP4174,  
"ELVAX" EP4987-PL, EP4989W, EP4989-2W,  
"ELVAX" EP6450,  
"ELVAX" PV1200, PV1410, PV1400, PV1600, PV1650,  
"ELVAX" XEP174-1, XEP208,  
"ELVAX" XEP218-1, XEP218-2,

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont Packaging & Industrial Polymers  
1007 Market Street  
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-(800)-441-7515  
Transport Emergency : 1-(800)-424-9300  
Medical Emergency : 1-(800)-441-3637

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COMPOSITION/INFORMATION ON INGREDIENTS  
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## Components

Material	CAS Number	%
ETHYLENE-VINYL ACETATE COPOLYMER		>98
PROCESS AIDS		<2
*VINYL ACETATE	108-05-4	<0.3

\* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

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HAZARDS IDENTIFICATION  
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## Potential Health Effects

## ADDITIONAL HEALTH EFFECTS

Before using "ELVAX" Resins, read the brochures on the safe handling procedures.

## ACUTE OR IMMEDIATE EFFECTS: ROUTES OF ENTRY AND SYMPTOMS

INGESTION The oral LD-50 in rats using one type of "ELVAX" is in excess of 1000 milligrams per kilogram of body weight. Two week metabolic tests with dogs and rats showed that no significant amount of polymer was retained by the animals. 90-day feeding studies in rats showed that "ELVAX" resins have low toxicity. Slight liver effects were seen in animals fed diets containing 10% "ELVAX"; no effects were seen with diets containing 5% "ELVAX". Overall, no important body systems or organ dysfunction occurred at either dose level.

SKIN No data are available. However, based on experience with handling these polymers, no unusual dermatitis hazard is expected from routine handling. Molten polymer contacting the skin will cause thermal burns.

EYE Mechanical irritation.

INHALATION Polymer is not respirable as marketed. At processing temperatures above 204 degrees C, fumes irritating to the eye, nose, and throat may be produced. Exposure may result in redness, tearing, and itching in the eyes together with soreness in the nose and throat with coughing.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

## Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

## (HAZARDS IDENTIFICATION - Continued)

Material  
VINYL ACETATEIARC NTP OSHA ACGIH  
2B A3-----  
FIRST AID MEASURES  
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## First Aid

## INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

## SKIN CONTACT

The compound is not likely to be hazardous by skin contact but cleansing the skin after use is advisable. If molten material gets on skin, cool rapidly with cold water. Do not attempt to remove material from skin. Obtain medical treatment for thermal burn.

## EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

## INGESTION

No specific intervention is indicated as compound is not likely to be hazardous by ingestion. Consult a physician if necessary.

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FIRE FIGHTING MEASURES  
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## # Flammable Properties

Flash Point : 260 C (500 F) Cleveland  
Method : open cup

## Fire and Explosion Hazards:

UNUSUAL FIRE, EXPLOSION HAZARDS The solid polymer can be combusted only with difficulty. An electrostatic charge can potentially build up when pouring pellets. Grounding of equipment is recommended.

HAZARDOUS COMBUSTION PRODUCTS Complete combustion gives carbon dioxide and water. Incomplete combustion gives, in addition, vinyl acetate, acetic acid, carbon monoxide and hydrocarbon oxidation products including organic acids, aldehydes, acrolein, and alcohols, oxides of nitrogen.

## (FIRE FIGHTING MEASURES - Continued)

## Extinguishing Media

Water, Foam, Dry Chemical, CO2.

## Fire Fighting Instructions

Wear self-contained breathing apparatus.

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ACCIDENTAL RELEASE MEASURES  
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## Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

## Spill Clean Up

Shovel or sweep up.

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HANDLING AND STORAGE  
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## Handling (Personnel)

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

## Storage

Store in a cool, dry place. Keep container closed to prevent contamination.

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EXPOSURE CONTROLS/PERSONAL PROTECTION  
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## Engineering Controls

VENTILATION Local ventilation must be used over processing equipment to maintain vinyl acetate concentrations in air below the PEL.

Use static controls. Static charges can build up and ignite dust or solvent laden atmospheres.

## Personal Protective Equipment

## EYE/FACE PROTECTION

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye and face contact due to splashing or spraying of molten material.

## RESPIRATORS

## (EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge with a dust/mist filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

## PROTECTIVE CLOTHING

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

## Exposure Guidelines

## Exposure Limits

"ELVAX" RESINS ALL IN SYNONYM LIST VAX012

PEL (OSHA) : Particulates (Not Otherwise Regulated)  
15 mg/m<sup>3</sup>, 8 Hr. TWA, total dust  
5 mg/m<sup>3</sup>, 8 Hr. TWA, respirable dust

## Other Applicable Exposure Limits

VINYL ACETATE

PEL (OSHA) : None Established  
TLV (ACGIH) : 10 ppm, 35 mg/m<sup>3</sup>, 8 Hr. TWA, A3  
STEL 15 ppm, 53 mg/m<sup>3</sup>, A3  
AEL \* (DuPont) : 10 ppm, 8 & 12 Hr. TWA

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

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PHYSICAL AND CHEMICAL PROPERTIES  
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## Physical Data

Melting Point : NA  
% Volatiles : Negligible  
Solubility in Water : Negligible  
Odor : Mild ester-like  
Form : Pellets  
Color : Translucent to white  
Specific Gravity : 0.93-0.97

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STABILITY AND REACTIVITY  
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## Chemical Stability

Stable at normal temperatures and storage conditions.

## Conditions to Avoid

Temperatures above 230 degrees C for short residence times.  
Temperatures above 204 degrees C for long residence times.

## Incompatibility with Other Materials

Incompatible or can react with strong acids, oxidizing agents.

## # Decomposition

HAZARDOUS DECOMPOSITION PRODUCTS - vinyl acetate, acetic acid, carbon monoxide, and, hydrocarbon oxidation products including, organic acids, aldehydes, acrolein, and, alcohols, oxides of nitrogen.

## Polymerization

Polymerization will not occur.

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TOXICOLOGICAL INFORMATION  
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## Animal Data

## VINYL ACETATE

Inhalation 4 hour LC50: 4000 ppm in rats  
Skin absorption LD50: 2335 mg/kg in rabbits  
Oral LD50: 2920 mg/kg in rats

Vinyl Acetate is a slight skin and a severe eye irritant, and a weak skin sensitizer in animals. No effects from repeated exposure to Vinyl Acetate by inhalation were observed at 100 ppm in rats. Exposure to higher concentrations of Vinyl Acetate by inhalation caused eye irritation and lacrimation, reduced weight gain, and irritation of the respiratory tract with breathing difficulty. The effects observed in rats and mice exposed by inhalation to 200 and 600 ppm for two years include reduced body weight, and pathological changes in the nose and respiratory tract. Nasal cavity tumors were observed in rats but not in mice. Research on the mechanism of nasal tumor induction in rats suggests that levels at which humans are likely to be exposed are below the threshold for effects that contribute to tumor formation.

## (TOXICOLOGICAL INFORMATION - Continued)

Vinyl Acetate is not a developmental toxin in animals. The effect of Vinyl Acetate on reproduction in animals is not considered significant. Genetic damage was produced in some types of cell cultures and in animals, but was negative in other studies. No tests for heritable genetic damage were available.

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ECOLOGICAL INFORMATION  
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## Ecotoxicological Information

## AQUATIC TOXICITY:

No information is available. Toxicity is expected to be low based on insolubility in water.

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DISPOSAL CONSIDERATIONS  
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## Waste Disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

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TRANSPORTATION INFORMATION  
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## Shipping Information

DOT/IMO/IATA  
Not Regulated.

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REGULATORY INFORMATION  
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## U.S. Federal Regulations

TSCA Inventory Status : In compliance with TSCA Inventory requirements for commercial purposes.

## State Regulations (U.S.)

## STATE RIGHT-TO-KNOW

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated.

(REGULATORY INFORMATION - Continued)

SUBSTANCES ON THE PENNSYLVANIA HAZARDOUS SUBSTANCES LIST PRESENT AT A CONCENTRATION OF 1 % OR MORE (0.01% FOR SPECIAL HAZARDOUS SUBSTANCES)- None known.

WARNING - SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM- None known.

SUBSTANCES ON THE NEW JERSEY WORKPLACE HAZARDOUS SUBSTANCE LIST  
PRESENT AT A CONCENTRATION OF 1% OR MORE (0.1% FOR SUBSTANCES  
IDENTIFIED AS CARCINOGENS, MUTAGENS OR TERATOGENS)- Vinyl Acetate.

## OTHER INFORMATION

### Additional Information

**MEDICAL USE: CAUTION:** Do not use in medical applications involving permanent implantation in the human body. For other medical applications see DuPont CAUTION Bulletin No. H-50102.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

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# Indicates updated section.
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This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS